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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,739	07/07/2003	Thomas L. DeFazio	ISR-PAT/CTR-1CON	6096

45464 7590 09/10/2007

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EXAMINER	
YEAGLEY, DANIEL S	

ART UNIT	PAPER NUMBER
3611	

MAIL DATE	DELIVERY MODE
09/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/614,739	DEFAZIO ET AL.	
	Examiner	Art Unit	
	Daniel Yeagley	3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32,39-41,54,55,57-74 and 76-94* is/are pending in the application.

4a) Of the above claim(s) *82-94* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *32,39-41,54,55,57-72,74 and 76-81* is/are rejected.

7)☒ Claim(s) *73* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Upon review of the Mankey reference and in view of newly discovered reference to van der Lely, further review and consideration of the all the claims has been conducted and the indicated allowability of claims 32, 39 – 41, 54, 55, 57 – 62, 70 and 76 are withdrawn.

Election/Restrictions

2. Newly submitted claims 82 – 94 appear to be directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the original election of figure 8 without traverse is drawn to an articulated center pivoted bar or arm (tail element) pivotally controlled by a drive element 807 and the unelected figures are drawn to a wheeled body portion (flipper) pivotally extending from another wheeled body portion and having a weighted element (batteries in the flipper), but does not include a tail element like that originally elected; applicant should further note the 112 first paragraph rejections cited below. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 82 – 94 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: numeral "133" cited on pages 18 and 22.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. Claim 76 is objected to because of the following informalities:

a. Claim 76, line 16, the term "*the* body *profile*" lacks proper antecedent basis.

b. Claim 76, line 19, the term "*the angle and portion* of the tail element" lacks proper antecedent basis.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 82 – 94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 82, 86, 89 and 90 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a drive module 806 or 810 or the non-elected flipper 130 of figure 1 being weighted by a battery or motor, does not reasonably provide enablement for the tail element 802 being weighted. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claims 83 – 85 and 92 – 94 are further rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the non-elected body portion of figure 1 comprising a flipper body portion pivotally couple to another body portion, does not reasonably provide enablement for the tail element 806 to additional comprise a flipper element and an additional angle control element other than the drive element to control the tail element, it appears applicant is trying to combine the two embodiments of figure 1 and figure 8. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 71 and 73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claim 71, the term "*the base*" lacks antecedent basis because it is unclear if applicant is referring to the recited body or is trying to claim another body portion (base).

b. Regarding claim 73, the term "*a profile*" is objected to because it is unclear if applicant is referring to the profile in a center plane recited earlier in claim 63 or is trying to claim a second profile.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 32, 39 – 41, 54, 55, 57 – 72, 74 and 76 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankey '989 in view of van der Lely 203.

Mankey shows a wheeled structure comprising a collective array of wheel elements that are arranged with left-right and fore-aft symmetry as best understood, wherein the wheel elements do not overlap between adjacent wheel elements and are aligned in a row (figure 2), wherein the sets of wheel elements comprise a first, second and an intermediate wheel element 42, 46 and 44 that are attached to first and second side portions of a body (figure 2), the wheel

sets are arrayed with a selected degree of rocker of the wheel elements; shown in figure 4 and 5, such that the intermediate wheel element contacts the ground plane with the first or second wheel element being selectively in contact with ground plane (column 1, line 25-39 and line 59-65) and wherein the wheeled structure includes a tail element (element 60 or boom assembly), wherein either tail element comprises a curved portion and are pivotally coupled to a portion of a body via an articulated element (conventional pivot, hinge or a flexible body) and include a drive module couple to its tail element that operatively control in a continuously variable manner, an angle and a position of its tail element relative to the body and controls the movement of its tail element from a first stowed position to at least one second position, wherein either one of the tail elements can selectively contact a terrain of a level ground plane that would enable the wheeled structure to traverse steep or difficult terrain, such that *when* either tail element is articulated furthest forward with respect to body, the tail is long enough to be capable of contacting a step forward the wheel and the tail elements can lift an end wheel element so that it is capable of attaining a step, wherein when a tail element is in a stowed position; (the stowed position being any position other than a second position), the tail elements substantially conform to a body profile as best understood (figure 1, 3 and 7), wherein the wheeled structure has a profile (outline of the structure which includes the movable tail elements), such that the movable profile can have a center plane and a movable top-of-body profile, such that the tail element is within this top-of-body profile when in a stowed position and substantially conforms to a profile as broadly claimed, and has a body with a profile in a plane between sides of the body and in a center plane of the body, wherein a tail or at least a portion thereof substantially conforms to a body profile or

at least a portion of the body profile when in a stowed position, but failed to show the intermediate wheel element with a wider track than a first and second end wheel element.

Lely discloses a wheeled structure that shows the prior art of utilizing an intermediate wheel element in a set of wheel elements that uses a wider tracked intermediate wheel than the track of the end wheels.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the wheel structure of Mankey with an intermediate wheel element that incorporates a wider width than the end wheels as suggested by Lely that provides a wider track than the outer wheels as suggested by the wider width wheeled structure of Lely in order to provide a more extensive area of contact for at least one wheel when used in unstable or muddy surface environments as taught by Lely and would obviously act as better floatation tires for more enhanced traction on loose soil as is well known in the art.

12. Claims 77 and 79 – 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankey '989 in view of Griffin et al '867.

Mankey; as stated above, discloses a wheeled structure with a first, second and intermediate wheel element attached to side portions of a body, and further discloses a tail element (60 or boom assembly) that are pivotally coupled to a portion of the body and includes a drive module coupling the tail element and controls the movement of the tail element from a first stowed position to at least one second position, such that either one of the tail elements are clearly capable of making selective contact with a level ground plane, and wherein at least one of the intermediate wheel elements is substantially smooth in profile, but failed to show at least one wheel element having a substantial scalloped profile.

Griffin show a wheeled structure comprising sets of wheel elements that shows the prior art of utilizing a wheel set configuration wherein the intermediate wheel element has a smooth profiled and further shows the art of providing at least one of the wheel elements with a scalloped profile that facilitates a turn-in-place of the structure, such that the scalloped profile is concaved (figure 3-4) and is clearly operatively capable of engaging an edge, such as a stair.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified a profile surface of Mankey wheeled structure with at least one scalloped profiled wheel element as suggested by Griffin in order to further enhance the steering of Mankey structure by using scalloped wheel elements to reduce skidding and add another degree of mobility to the transport platform of Mankey structure as taught by the scalloped wheel of Griffin.

13. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mankey '989; as modified by Griffin et al '867, in further view of van der Lely '203.

Mankey; as modified by the Griffin scalloped wheel, discloses a wheeled structure with first, second and intermediate wheel elements attached to side portions of a body, but failed to show the intermediate wheel element having a wider track than the first and second wheel elements.

Lely discloses a wheeled structure that shows the prior art of utilizing an intermediate wheel element in a wheel set that uses a wider tracked intermediate wheel than the track of the end wheels.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the wheel structure of Mankey; as modified by Griffin, with an intermediate wheel element that incorporates a wider width wheel element providing a wider track than the outer wheels as suggested by the extended wheel width of Lely intermediate wheel element in order to provide a more extensive area of contact for at least one wheel when used in unstable or muddy environments as taught by Lely and would obviously enhance the traction by utilizing wider width (floatation type) wheels when on loose soil as is well known in the art.

Allowable Subject Matter

14. Claim 73 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments filed 11/7/06 with response filed 2/22/07 have been fully considered but they are not fully persuasive. Applicant's arguments with respect to the pending claims has been considered but are moot in view of the new ground(s) of rejection as stated above by Mankey in view of Lely. Mankey discloses tail elements (element 60 or boom assembly) in which either pivoted element can be driven by a control module in a continuous variable manner to vary the angle and position the elements relative to the body, wherein either element is known and commonly used to lift the body and would cause the structure to pivot on the intermediate wheel element as suggested by figure 4 and 5 of Mankey, and the wheeled

structure of Mankey is commonly known for traversing steep terrain or obstacles and is clearly capable of traversing a step.

In response to applicant's argument that Mankey does not teach or suggest the combination of elements as claimed, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kumar et al '716, Ballinger '483, Iwamoto et al '407 and Mugnier '740 show a wheeled structure with a tail element pivoted from a profile of the body.

White '544 and Farnam '900 show a wheel element having a scalloped profile.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is (571)-272-6655. The examiner can normally be reached on Mon. - Thur..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on (571) - 272 - 6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D.Y.

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